

REMARKS / ARGUMENTS

I. General Remarks and Disposition of the Claims.

Claims 1-86 are pending. Claims 1, 3-8, 11, 14-16, 19-21, and 23 are currently amended. Applicants respectfully request that the above amendments be entered, and further request reconsideration in light of the amendments and remarks contained herein.

On November 18, 2005, during a telephone conversation with the Examiner, claims 1-23 were provisionally elected in response to the Examiner's restriction requirement without traverse. This provisional election is hereby confirmed, and claims 24-86 have been cancelled. No amendment to inventorship is necessitated by this election. Applicants reserve the rights to subsequently take up prosecution on the claims as originally filed in this or an appropriate continuing application.

II. Rejections of the Claims Under 35 U.S.C. § 112

Claims 1-23 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to include at least one positively-recited step. (Office Action, at page 4.) Although Applicants believe that claim 1 was sufficiently definite, Applicants have amended claim 1 per the Examiner's suggestion. Therefore, Applicants respectfully request the withdrawal of these rejections.

Claims 3, 4, 20 and 21 are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for containing ambiguous language. Applicants have amended these claims to clarify the limitation of the claims. Therefore, Applicants respectfully request the withdrawal of these rejections.

Claims 5-8, 14-16, 19, 21 and 23 are rejected under 35 U.S.C. § 112, as being indefinite in being drawn to improper Markush groupings. (Office Action, at page 5.) Although Applicants believe that this language was sufficiently definite to meet the requirements of 35 U.S.C. § 112, Applicants have amended the Markush grouping language in these claims per the Examiner's suggestion. Because the original language was sufficiently definite, there is no change in claim scope because of these amendments. Therefore, Applicants respectfully request the withdrawal of these rejections.

III. Remarks Regarding Rejections Under 35 U.S.C. § 102(b).

Claims 1, 2, and 11-13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,034,140 issued to Gardener, *et al.* (hereinafter "Gardener") in

view of the publication to Freidli *et al* entitled “Novel New Ester Quaternaries for Improved Performance Benefits as Rinse Cycle Fabric Softeners” (hereinafter “*Freidli*”) or Holmberg entitled “Esterquats” (hereinafter “*Holmberg*”). With respect to this rejection, the Examiner writes that:

Gardner et al discloses a process for acidizing a subterranean formation, while inhibiting metal corrosion during the acidizing treatment operation, e.g., by including a corrosion inhibitor in the acidizing formulation. Such acidizing formulation or composition used in Gardner et al (note, e.g., the Abstract) further includes an emulsifying agent which may comprise “quaternary ammonium compounds having ester of amide linkages.” While Gardner et al does not explicitly describe or label such compound(s) as an “esterquat,” both publications to Freidli et al (note Structure 9 on page 402) and Holmberg (note Figure 8 on page 35) clearly illustrate and define “quaternary ammonium compounds having ester of amide linkages” as comprising “Amide Esterquats” (e.g., Holmberg, Figure 8 on page 35). Accordingly, it is deemed that the “quaternary ammonium compounds having ester of amide linkages” emulsifying agent component of the acidizing formulation injected in the formation acidizing process of Gardner et al inherently or necessarily comprises an “esterquat,” as called for in independent claim 1.

(Office Action, page 6.)

In order to form a basis for a rejection under 35 U.S.C. § 102(b), a prior art reference must disclose each and every element as set forth in the claim. *Manual of Patent Examining Procedure* § 2131 (2004) (hereinafter “MPEP”). *Gardener* does not disclose each and every element as set forth in independent claim 1 because *Gardener* does not disclose the step of “allowing at least one esterquat to at least partially inhibit metal corrosion.” Rather, *Gardener* is directed to an acid system that may allow acid to be delivered deeply into a subterranean formation by emulsifying the acid within a hydrocarbon carrier fluid. (*Gardener*, col. 3, lines 25-61.) The “quaternary ammonium compound containing ester or amide linkages” that may be used in *Gardener* is an emulsifying agent that is used to emulsify an acid within a hydrocarbon carrier fluid such that the external phase of the well treatment fluid is not the acid, but rather the hydrocarbon carrier fluid, which is non-corrosive. *See id.* Therefore, given that *Gardener* does not teach all the claim limitations of the present invention, this reference cannot anticipate Applicants’ claims.

Therefore, Applicants respectfully submit that these claims are patentable over this reference. Moreover, since “a claim in dependent form shall be construed to incorporate by reference all the limitations of the claim to which it refers,” and since claims 2 and 11-13 depend, either directly or indirectly, from claim 1, these dependent claims are allowable for at least the same reasons. *See* 35 U.S.C. § 112 ¶ 4 (2004). Accordingly, Applicants respectfully request the withdrawal of these rejections.

IV. Remarks Regarding Rejections Under 35 U.S.C. § 103(a).

A. Claims 9, 10, 15, and 16

Claims 9, 10, 15, and 16 stand rejected under 35 U.S.C. § 103(a) as obvious over *Gardener* in view of *Freidli* or *Holmberg*. With respect to this rejection, the Examiner writes that:

Although no particular pH value of the acidizing formulation utilized in the process of Gardner et al are set forth, it is deemed that such acidizing formulation will inherently possess a pH within the range(s) set forth in claim 9 and 10, especially since, in one embodiment, up to 28% by weight hydrochloric acid may be provided. Alternatively, to provide the acidizing formulation or composition with a pH in such range(s) would have been an obvious matter of choice or design to one of ordinary skill in the art in scaling-up or applying the Gardner et al process based on the characteristics or composition of a specific subterranean formation actually encountered in the field.

It is deemed that the surfactants listed in claims 15 and 16 are well known and conventional in the well stimulation or treatment art, and judicial notice is taken to that effect.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to utilize one or more of the surfactants listed in claims 15 and 16 as the surfactant or cosurfactant component in the acidizing formulation injected in the process of Gardner et al, based on e.g., the availability or cost effectiveness of such surfactant(s), relative to other conventional or commercially-available oil field surfactants.

(Office Action, at page 7-8.)

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MPEP § 2143. However, as discussed in Section III above, *Gardener* does not teach all the elements of claim 1, from which claims 9, 10, 15 and 16 depend because *Gardener* does not teach the step of “allowing at least one esterquat to at least partially inhibit metal corrosion.”

Rather, *Gardener* is directed to an acid system that may allow acid to be delivered deeply into a subterranean formation by emulsifying the acid within a hydrocarbon carrier fluid. (*Gardener*, col. 3, lines 25-61.) Similarly, *Freidli* and *Holmberg* do not supply these missing elements. Thus, this combination of references does not obviate claims 9, 10, 15 and 16. Accordingly, Applicants assert that claims 9, 10, 15 and 16 are patentable over *Gardener* in view of *Freidli* or *Holmberg*, and thus request the withdrawal of these rejections.

B. Claim 22

Claim 22 stands rejected under 35 U.S.C. § 103(a) as obvious over *Gardener* in view of *Freidli* or *Holmberg*, and further in view of U.S. Patent No. 3,773,465 issued to Kenney, *et al.* (hereinafter “*Keeney*”). With respect to this rejection, the Examiner writes that:

Keeney et al discloses the inclusion of iodine, in the form of cuprous iodine, in admixture with a “traditional” corrosion inhibitor as an “intensifier” for the corrosion inhibitor.

Accordingly, it would have been obvious to one of ordinary skill in the art to which the invention pertains, to similarly include an iodine compound, such as cuprous iodide, in the acidizing formulation injected in the formation acidizing process of Gardner et al, in order to intensif[y] or enhance the overall effectiveness of the corrosion inhibitor component of the acidizing formulation.

(Office Action, at page 7-8.)

In order for a combination of references to form the basis for a rejection under § 103(a), the combination of references must teach or suggest all of the elements of the claim. MPEP § 2143. However, as discussed in Section III above, *Gardener* does not teach all the elements of claim 1, from which claim 22 depends, because *Gardener* does not teach the step of “allowing at least one esterquat to at least partially inhibit metal corrosion.” Rather, *Gardener* is directed to an acid system that may allow acid to be delivered deeply into a subterranean formation by emulsifying the acid within a hydrocarbon carrier fluid. (*Gardener*, col. 3, lines 25-61.) Similarly, *Freidli*, *Holmberg*, and *Keeney* do not supply these missing elements. Thus, this combination of references does not obviate claim 22. Accordingly, Applicants assert that claim 22 is patentable over *Gardener* in view of *Freidli* or *Holmberg*, and further in view of *Keeney* and thus request the withdrawal of these rejections.

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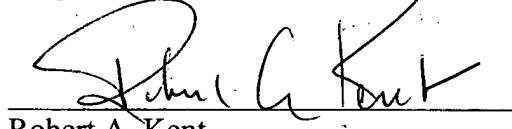
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SUMMARY

In light of the above remarks, Applicants respectfully request reconsideration and withdrawal of the outstanding rejections. Applicants further submit that the application is now in condition for allowance, and earnestly solicit timely notice of the same. Should the Examiner have any questions, comments, or suggestions in furtherance of the prosecution of this application, the Examiner is invited to contact the attorney of record by telephone, facsimile, or electronic mail.

Applicants believe that no additional fees are due in association with the filing of this Response. However, should the Commissioner deem that any additional fees are due, including any fees for extensions of time, the Commissioner is authorized to debit the Deposit Account of Halliburton Energy Services, Inc., No. 08-0300, for any underpayment of fees that may be due in association with this filing.

Respectfully submitted,



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